



**CITY OF HOUSTON**  
Public Works & Engineering Department  
Planning & Development Services Division  
Code Enforcement Branch / Plan Review Section

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## **School Plan Review Submittal Information**

### **Design Occupant Load for Schools**

**1. Class Rooms**

Determine net square footage of each classroom and use O.L. factor 20 sq. ft. per person and then add up occupant load of each classroom to find the total occupant load.

**2. Office Area**

Determine occupant load based on gross area of office portion using 100 sq. ft. per person.

**3. Total**

Add up classroom load and office area together to find total occupant load of the school.

**4. Gymnasium, Cafeteria, Cafetorium & Auditorium**

Gymnasium & cafeteria = Use 15 sq. ft. per person to find total occupant load

Cafetorium = It is for dual purpose as a cafeteria and as an auditorium. Without any fixed seats, use 7 sq. ft. per person to find the total occupant load of cafetorium.

Auditorium = If there are no fixed seat, then use 7 sq. ft. per person and if there are fixed seats, count total no. of seats to find the occupant load.

**5. Library**

Reading rooms = Use 50 sq. ft. per person for net area used as reading room to find the occupant load.

Stack area = Use 100 sq. ft. per person for gross area of stack room/area to find the occupant load.

**6. Non-Simultaneous Use**

If gymnasium, cafeteria, cafetorium, auditorium, or library is used only for displaced students, then that occupant load is not added to the total occupant of the school, but that occupant load is used to determine exit requirements of that portion.

In case any of these portions are used by outsiders temporarily for any occasion or celebrations, then the occupant load of that portion is added to the total occupant load determined in step 3 to find the grand total of occupant load.

**7. Simultaneous Use**

If a gymnasium, cafeteria, cafetorium, auditorium, or library is a separate, stand-alone building, then it will have its own occupant load.

NOTE: If there is a reduction of occupant load based on teacher/student ratio as per Texas Education Agency, building official's approval is required as per Sec. 1003.2.2 of the Houston Building Code.

# SCHOOL CHECKLIST – 2000 IBC, UMC, UPC, IECC 2002 NEC

Submit two **(2) sets** of non-erasable/legible **ready-for-construction** plans including (but not limited to) a survey and a Site Plan. NO SPEC BOOKS.

The following are some of the **basic and frequently overlooked code requirements** that must be detailed on plans for Schools and may be useful as a checklist for the designer. This **list is not** intended to be **exhaustive** of all possible requirements. The code books along with the code of ordinances of the City of Houston contain the comprehensive list of code requirements.

**Inconsistencies** between details **will be noted** as needing to be corrected.

## GENERAL REQUIREMENTS

| Code Ref.                          | Requirements  | √ |
|------------------------------------|---|---|
| <b>BUILDING PERMIT APPLICATION</b> |   |   |
|                                    | One Per Building – Distinct Building # Address Critical                                       |   |
|                                    | Project (#)   |   |
|                                    | Scope Clearly Defined (New, Addition, Remodel, T-Building)                                    |   |
|                                    | Cost Of Construction (Material And Labor At Industry Costs) / Separate Breakdown New & Rem    |   |
|                                    | Legal Description (New Bldgs And Addn's)  |   |
|                                    | # Stories   |   |
|                                    | TDLR # (if Required)  |   |
|                                    | Asbestos Survey (If existing bldg.)   |   |
|                                    | Sprinkler (Yes or No) Percentage and Type   |   |
|                                    | Responsible Parties   |   |
|                                    | Deed Restriction Affidavit (Reverse side)   |   |
| <b>WATER / WASTEWATER</b>          |   |   |
|                                    | Wastewater – Taps & Meters Water Meter Account  |   |
|                                    | Utility Connection Locations  |   |
|                                    | Wastewater Capacity Application And Fees Or Exemption Form                                    |   |
|                                    | Occupant Load Match With Code Review Occupant Load *  |   |
| <b>CODE ANALYSIS</b>               |   |   |
| Ch. 3                              | Occupancy Classification  |   |
| Table 503                          | Building Height And Area  |   |
| 504                                | Height Modifications  |   |
| 506                                | Basic Allowable Area & Area Modification  |   |
| 507.7                              | Unlimited Area  |   |
| Table 601                          | Type of Construction (can be found on Certificate of Occupancy)                               |   |
| 302.3                              | Mixed Occupancy Separation  |   |
| 302.1.1                            | Incidental Use Areas  |   |
| Table 601                          | Fire-Resistance Rating For Building Elements  |   |
| 705                                | Fire Separations  |   |
| 706                                | Fire Areas / Barriers   |   |
| Table 1002                         | Design Occupant Load  |   |
| Table 1002                         | Actual Occupant Load (Request Building Official Approval)*                                    |   |
| 305.2, 308.5.2                     | Daycare   |   |
| 302.2                              | Accessory Use Areas   |   |
| 302.3.3 notes e,f                  | Special Occupancy Separations   |   |
| 509                                | Foundation Elevation with Elevation of Nearest Sanitary Sewer Manhole Rim                     |   |
| <b>SITE PLAN</b>                   |   |   |
|                                    | Master Plan For Campus  |   |
|                                    | Footprint Of All Existing Building With New Additions Or Structures                           |   |
| 106.2                              | Property Lines  |   |
| 704.3                              | Assumed Property Lines (If Required)  |   |
|                                    | Easements / Building Setbacks   |   |
|                                    | Dimensions  |   |
|                                    | Address & Use Of All Buildings On Site  |   |
|                                    | Parking / Paving/ Approaches / Sidewalks  |   |
| <b>DRIVEWAYS/ SIDEWALKS</b>        |   |   |
|                                    | Width, Radius And Distance To Both Property Lines   |   |
|                                    | Sidewalk Required If Inside Loop 610, On A Major Thoroughfare, Or If Lot Frontage Is 125 Feet |   |
|                                    | Not Less Than 25 Feet To Corner Intersection  |   |
|                                    | Must Have Traffic Section Approval  |   |
| <b>SPECIAL INSTRUCTIONS</b>        |   |   |
|                                    | List Each Designer On The Drawing Set By Specific Trade – Name, Phone #                       |   |
|                                    | Scope Of All Work To Be Installed On This Permit.   |   |
|                                    | Determine Total Square Feet of New Paving   |   |

# STRUCTURAL

| Code Ref.              | Requirements   | √                            |
|------------------------|--|------------------------------|
| <b>FOUNDATION PLAN</b> |  |                              |
| 1802                   | Geo-technical Investigation Report (Attached to Each Set of Plans)                                 |                              |
|                        | Engineered Foundation Layout – Location of All Footings and Piers                                  |                              |
|                        | Engineered Details Including Pier Designs & Footings Referenced on Layout                          |                              |
|                        | Beam Sections  |                              |
|                        | Reinforcement Details  |                              |
|                        | Drill Pier Details   |                              |
|                        | Engineer Block Layout (If Required)  |                              |
| <b>FRAMING</b>         |  |                              |
| 106.3                  | Complete Engineered Framing Plans  |                              |
| 1609.3                 | 110 Mph Wind Speed - 3 Second Gust   |                              |
|                        | Engineered Metal Building Plans  |                              |
| 1607.1                 | Engineer Metal Stair Drawings  |                              |
| Ch. 16                 | Structural Loads : Storage = 125psf/Light Or 250 Psf/Heavy, Stairs, Handrails, Guard Rails         |                              |
|                        | Structural Masonry Designs (Including Trash Enclosures)  |                              |
|                        | All Canopies And Covered Walkways  |                              |
|                        | Wall Sections – Foundation To Ridge  |                              |
|                        | Floor, Ceiling And Roof Framing Details  |                              |
|                        | Fire Rating Designs And Numbers (UL, Gypsum Manual Or IBC Ch.7)                                    |                              |
|                        | Fire Rated Design Detail From Approved Agency Or IBC, Chapter 7                                    |                              |
|                        | Fire Rated Exterior Walls (<5' From Property Line Must Be 1 Hour Wall)                             |                              |
|                        | 45 Minute Glass Block Otherwise No Openings  |                              |
| 603                    | Combustible Material In Types I And II Construction  |                              |
|                        | Insulation R-Values  |                              |
|                        | Wood:  |                              |
|                        | Lumber <u>Size</u> , <u>Grade</u> , <u>Species</u> , And <u>Spacing</u> For Studs, Joists, Rafters |                              |
|                        | Windstrapping From Appendix Or Engineered Design   |                              |
|                        | Wind Bracing   |                              |
|                        | Nailing Schedule   |                              |
|                        | Attic Access: 22" X 30" = No Equipment or 30" X 54" with 350lb. Load Ladder =Equip In Attic        |                              |
|                        | Framing Dimension Must Be Large Enough To Allow For R Value Insulation Thickness                   |                              |
|                        | Enclosed Useable Space Below Stair Must Have ½" Gypsum Board                                       |                              |
| 1609.3                 | Engineered Tie-Downs (Modular Building) note: 110 MPH Wind Speed - 3 Second Gust                   |                              |
| <b>FIRE PROTECTION</b> |  |                              |
| 903                    | SPRINKLERS WHERE REQUIRED  | <input type="checkbox"/> N/A |
| 903.2.12.1             | Basements > 1500 sq ft   |                              |
| 903.2.2                | Area > 20,000 sq ft  |                              |
| Table 601 note d       | Reduction of Hourly Ratings  |                              |
| 903.3.1                | Sprinkler Standard NFPA 13   |                              |
| 903.3.4                | Valves Controlling Water Supply  |                              |
| Table 1004.2.4         | Exit Access Travel   |                              |
| 907.2.3                | FIRE ALARMS  | <input type="checkbox"/> N/A |
| 907.3.1                | Manual Fire Alarm Box Exemption  |                              |
|                        | Texas P. E. or Alarm Planning Superintendent   |                              |
| 905                    | STANDPIPES REQUIRED  | <input type="checkbox"/> N/A |
| 905.3.1                | Buildings With Floors > 30 Ft Above Grade  |                              |
| 905.4 – 905.6          | Hose Connection Location   |                              |
| 905.2                  | Standpipe Standard NFPA 14   |                              |
| 905.9                  | Valves Controlling Water Supply  |                              |
| 905.7                  | Cabinets   |                              |
| <b>EXITS</b>           |  |                              |
| 1003.3.1.9             | Door & Hardware Schedule Including Panic Hardware  |                              |
| 1003.2.3               | Exit Capacity > Occupant Content   |                              |
| 1003.2.2.7             | Converging Exit  |                              |
| 1004                   | Travel Distance & Arrangement Of Exits   |                              |
| Table 1004.2.1         | Two Exits (Room Or Tenant Space > 50 Occupants Or > Travel Greater Than 1004.2.5                   |                              |
| 1004.2.5               | Common Path Of Travel  |                              |
| 1004.2.2.1             | Exit Separation (1/2 Diagonal Dimension Of Building – 1/3 If Sprinkled)                            |                              |
| 1005.2.1               | Minimum Number Of Exits  |                              |
| Table 1005.2.2         | Single Exit (One Story, 50 Occupants, And 75 Ft. Travel Distance)                                  |                              |
| 1004.3.2.2             | Minimum Width Of Access Corridor   |                              |
| 1003.3.3.1             | Minimum Stair Width / Door Width   |                              |
| 1007.1                 | Boiler, Incinerator Or Furnace Room  |                              |
| 1007.2                 | Refrigeration Machinery Room   |                              |
| 1004.3.2.3             | Dead End Corridor < 20ft.  |                              |
| 1005.3,1004.3.2.1      | Exit Access Corridor   |                              |
| 1005.3.2.5             | Smokeproof Enclosures  |                              |
| 1003.3.3.8             | Mezzanines   |                              |
| 1005.3.2               | Stair Details – Rise And Run, Tread Details  |                              |
| 1005.3.2.3             | Stairway Identification For Stairs That Continue Below The Level Of Discharge                      |                              |

| Code Ref.  | Requirements   | √                            |
|--|--|------------------------------|
| 1003.3.3.5   | STAIRWAY CONSTRUCTION  | <input type="checkbox"/> N/A |
| 1003.3.3.3.2   | Closed/Open Risers   |                              |
| 1005.3.2.2   | Separation Of Closets Below Stairways  |                              |
| 1003.3.3.3   | Stair Treads And Risers  |                              |
| 1003.3.3.3.1   | Uniform Treads And Risers  |                              |
| 1003.3.3.4   | Landings   |                              |
| 1003.3.3.11  | Handrails  |                              |
| 1003.3.3.2   | Headroom   |                              |
| 1003.3.3.12  | Access To Roof   |                              |
| 1005.3.5   | Horizontal Exits   |                              |
| 1003.2.2.5   | Assembly Room Capacity Sign  |                              |
| Table 1004.2.1   | Assembly Room Exits  |                              |
| 1005.3.6   | Exterior Exit Stairways  | <input type="checkbox"/> N/A |
| 1006.2.2   | Adjacent Lot Lines   |                              |
| 1005.3.6.5   | Fire Resistive Separation  |                              |
| 1006   | Exit Discharge   |                              |
| 1003.3.1.3.4   | Electronic Locks   |                              |
| 1003.2.2   | Locked Gates   |                              |
| 1003.3.4   | Ramp Details – Slope, Surface, Edge Treatment  |                              |
| 1004.3.3   | Balconies  |                              |
| 1003.2.12  | Guardrails – Maximum 4" Openings And 42" Height  |                              |
| 10003.2.10   | Exit Illumination And Signs  |                              |
| 1005.3.2.4   | Stairway Floor Number Signs  |                              |
| 1004.3.1   | Exit Obstructions  |                              |
| <b>ENGINEER' S SEAL</b>  | (when required)  |                              |
|  | Required On Foundations  |                              |
|  | Required On Structural Steel   |                              |
|  | Required For Prefab Trusses And Beams  |                              |
|  | Required For Masonry >2 Feet   |                              |
|  | Signed And Dated After Latest Revision By Engineer Responsible For New Revisions                 |                              |
| <b>SAFETY GLAZING</b>  |  |                              |
| Ch. 26   | Shower And Tub Enclosures  |                              |
|  | Side Hinged Doors  |                              |
|  | Adjacent To Stairs And Landings  |                              |
|  | Panels Adjacent And Within 24 Inches Of Door   |                              |
|  | Panels With 9 Square Feet And Bottom With 18 Inches Of Floor And Top Above 36 Inches Above Floor |                              |
| <b>FLOOR PLANS</b>   |  |                              |
|  | Dimensioned And To Scale   |                              |
|  | All Rooms Labeled  |                              |
| Ch.8   | Finish Schedule  |                              |
| <b>2000 IECC INTERNATIONAL ENERGY CONSERVATION CODE – SEC. 802</b> |  |                              |
|  | FORM – Match Plans And Software Report – Attach To Each Set Of Plans                             |                              |
|  | Computer Software Report Attached If Used  |                              |
|  | Square Footage Of Floors And Walls   |                              |
|  | Percent Of Glazing Required Computation  |                              |
|  | Energy Glazing Factors SHGC And U Factor   |                              |
|  | Building Envelope Insulation R-Values  |                              |

## ELECTRICAL

| Code Ref.       | Requirements  | √ |
|-----------------|---|---|
| <b>2002 NEC</b> |   |   |
| 302.2           | Engineer Seal (Master If Minor Remodel Not Requiring Engineering) |   |
| 110.26          | Working Space About Equipment                                     |   |
| 110.26          | Entrance To Working Space   |   |
| 110.26          | Headroom About Equipment  |   |
| 110.26          | Dedicated Equipment Space   |   |
| 210             | Branch Circuit Requirements                                       |   |
| 210             | Required Outlets  |   |
| 215             | Feeder Requirements   |   |
| 220             | Load Analysis/Service Calculations                                |   |
| 230             | Service Requirements  |   |
| 240             | Complete One Line Diagram   |   |
| 250             | Grounding Requirements  |   |
| 300             | Wiring Methods And Material                                       |   |
| 408             | Panels Schedules  |   |
|                 | Fixture Schedules   |   |

|  |   |  |
|--|---|--|
| <b>2000 IECC INTERNATIONAL ENERGY CONSERVATION CODE – Sec. 805</b> |   |  |
| T805   | Fill Out City Of Houston Energy Form For Allowable Watts  |  |
|  | Signed By Engineer Or Electrical Master                   |  |
|  | Identify Fixtures By Wattage                              |  |
| Sec. 8   | Bi-Level Switching And Occupancy Sensor Under 250 Sq. Ft. |  |
| Sec. 8   | Auto Lighting Control Over 250 Sq.Ft.                     |  |
| Sec. 8   | Exterior Lighting Control                                 |  |
|  | IC Rated Fixtures   |  |

## MECHANICAL

| Code Ref.  | Requirements  | √ |
|--|---|---|
| <b>2000 IBC</b>  |   |   |
| Table 715.5  | Fire Rated Floor/Ceiling Assembly                   |   |
| Table 719.1(1)   | Fire Rated Floor/Ceiling Assembly                   |   |
| U.L. design  | Fire Rated Floor/Ceiling Assembly                   |   |
| 711  | Fire Rated Floor/Ceiling Assembly                   |   |
| 711.3.1.1  | Fire Rated Floor/Ceiling Assembly                   |   |
| Table 715.5  | Fire & Smoke Damper Locations                       |   |
| Table 715.5  | Corridor Enclosure (One Hour Corridors)             |   |
| Table 1004.3.2.1   | Corridor Enclosure (One Hour Corridors)             |   |
| Table 715.5  | Shaft Enclosures (Fire & Smoke Dampers)             |   |
| 707  | Shaft Enclosures (Fire & Smoke Dampers)             |   |
| 106.1  | Engineer Seals (Current Seal Signed & Dated)        |   |
| 3006.2   | Provide Ventilation For The Elevator Machinery Room |   |
| U.L. Design  | Provide The Model & Manufacture For Dampers         |   |
| U.L. Directory   | 576 Sq. Inches Of Opening Per 100 Sq. Foot          |   |
| <b>2000 UMC</b>  |   |   |
| 113.3.1  | Penetration Details Of Fire Rated Assemblies        |   |
| 113.3  | Provide An Equipments Schedule                      |   |
| 310.1  | Condensation Removal                                |   |
| 408.3  | Toilet Exhaust                                      |   |
| Table 4-1  | Outside Air Requirements For Ventilation            |   |
| Table 5-1  | Dust Collection                                     |   |
| Table 5-1  | Fume Hoods  |   |
| 504.3  | Dryer Ducts   |   |
| 506.9  | Exhaust Outlet Termination Points                   |   |
| article 15 IFC   | Paint Spray Booths                                  |   |
| 508  | Kitchen Exhaust Systems                             |   |
| 504.1  | Makeup Air For Exhaust Systems                      |   |
| 509.9  |   |   |
| 509  | Commercial Kitchen Hoods                            |   |
| 510  | Automatic Fire-Extinguishing Systems                |   |
| 903  | Access To Equipment                                 |   |
| 1105.8   | 5 Hp Units > 10 Foot From Exit                      |   |
| 1107.1.1   | Chiller > 20 Foot From Opening In Building          |   |
| 1107   | Refrigeration Machinery Rooms                       |   |
| 1108   | Refrigeration Machinery Room Ventilation            |   |
| 1108.7   | Refrigeration Ventilation Discharge                 |   |
| <b>2000 IECC INTERNATIONAL ENERGY CONSERVATION CODE – SEC. 803</b> |   |   |
| Section 7 & 8  | City Of Houston. Energy Compliance Form             |   |
| Table 803  | Equipment Efficiency Rating (SEER, EER, IPLV, COP)  |   |
| 803.2.3.1  | Programmable Temperature Controls                   |   |
| 803.3.2  | Temperature Range Or Deadband                       |   |
| 803.2.8  | Duct And Plenum Insulation (R-5 Or R-8)             |   |

## PLUMBING

| Code Ref.  | Requirements   | √ |
|--|--|---|
| <b>SWQMP</b>   | Obtain Storm Water Quality Permit from PWE Department  |   |
| <b>SITE PLAN</b>   |  |   |
|  | Location of easements  |   |
|  | Water, sewer, storm piping to be shown on site plan  |   |
|  | Provide utility letter(s) – water / sewer / storm  |   |
|  | Show all piping to point of connection to city services as per letters of availability.  |   |
|  | Dimensions from property line to buildings   |   |
|  | Specific type of material for all piping systems   |   |
|  | Internal site drainage details   |   |
|  | Surface Site drainage  |   |
|  | Stormwater Pollution Prevention Plan   |   |
| <b>2000 UPC</b>  |  |   |
| Table 11-1, 11-2   | Complete riser diagram for all roof drainage showing sq. foot area for each roof drain, over-flow drain or scupper, with all sizes   |   |
| Sec 1101-1102  | New roof drains with square foot area for each on riser diagram and roof plan.   |   |
| Chapter 6  | Provide details of water heaters, back-flow preventers, water softeners, surge tanks, sump pumps, and acid dilution tank if required |   |
| Table 6-4, APPa  | Water pipe sizing  |   |
|  | Complete riser diagram for all waste and vent piping with all pipe sizes shown   |   |
| Ch. 12 UPC   | Riser diagram for any gas showing distance from meter to each opening  |   |
|  | Specific types of all piping materials to be noted on plans.   |   |
| Chapter 20   | Comply with any health department requirements for plumbing related items  |   |
| Table H-1 & APP H  | Calculations and any details for required interceptors   |   |
| <b>2000 IBC</b>  |  |   |
| 2902.1   | Calculations for sanitary facilities to insure required fixture count.   |   |
| <b>2000 IECC INTERNATIONAL ENERGY CONSERVATION CODE – SEC. 804</b> |  |   |
| <b>REMODELS</b>  |  |   |
|  | Complete site plan showing existing conditions and cloud all new construction.   |   |

## T-BUILDINGS

| Code Ref.         | Requirements   | √ |
|-------------------|--|---|
| <b>GENERAL</b>    |  |   |
|                   | Four sets of plans   |   |
|                   | Site plan with dimensions to property lines and other buildings  |   |
| <b>STRUCTURAL</b> |  |   |
|                   | State of Texas approval or a complete set of structural plans  |   |
|                   | Foundation plan with engineered tie-downs  |   |
|                   | Exit stair and ramp details - engineered   |   |
| <b>ELECTRICAL</b> |  |   |
|                   | State of Texas approval or a complete set of electrical plans.   |   |
| 302.2             | Engineer Seal or Master Electrician  |   |
| 302.2             | Electrical site plan, location of service  |   |
| 240               | Complete one line diagram  |   |
| <b>MECHANICAL</b> |  |   |
|                   | State of Texas approval or a complete set of mechanical plans.   |   |
|                   | must show the route and disposal method of condensation from the A/C units   |   |
|                   | when stacked together forming a one-hour corridor must show code compliance for the corridor (smoke dampers)   |   |
|                   | Site plan with dimensions  |   |
|                   | Show dimensions from building to property line and to existing buildings.  |   |
| <b>PLUMBING</b>   |  |   |
|                   | Temporary building with plumbing-show water and sewer sizes with specific type of material from building to point of connection  |   |
|                   | Grading plan for area of temporary buildings- show elevations draining to existing on site drainage  |   |
|                   | Note on cover sheet if occupants of new or relocated temporary buildings are for new students or relocated students. If relocated students note if existing restroom facilities are to be usable during construction or if you are placing a restroom temporary building |   |

# **FIRE ALARM REQUIREMENTS- 2000 IBC/IFC**

## **NEW SCHOOLS, NEW ADDITIONS, NEW OR USED MODULAR BLDGS. MOVED TO NEW LOCATIONS.**

1. SEE IBC 2000 SEC. 907.2.3 FOR F/A DEVICE REQUIREMENTS.
2. INSTALLED PER NFPA 72. 1996 EDITION.
3. VISUAL ALARMS MUST COMPLY WITH IBC 907.9.1.1 AND NFPA 72.  
GENERALLY VISUAL ALARMS ARE REQUIRED IN ALL AREAS WITH THE EXCEPTION OF PRIVATE OFFICES, STORAGE ROOMS LESS THAN 20 SQ. FT. AND TOILET ROOMS OPENING ONLY INTO PRIVATE OFFICES, SHALLOW CLOSETS, JANITOR CLOSETS, UNOCCUPIED EQUIPMENT ROOMS (MECHANICAL, ELECTRICAL, COMMUNICATIONS) AND STORAGE ROOMS OPENING INTO CLASSROOMS THAT ARE FOR THE EXCLUSIVE USE OF THE TEACHER
4. PROVIDE A LEGEND FOR F/A SYMBOLS USED.
5. PROVIDE A SEQUENCE OF OPERATION FOR F/A SYSTEM. (MUST ACTIVATE A GENERAL ALARM THROUGH-OUT ALL BUILDINGS).
6. DRAWINGS MUST DISPLAY AN ALARM PLANNING SUPERINTENDENT OR A TEXAS REGISTERED PROFESSIONAL ENGINEERS STAMP.
7. F/A SYSTEMS MUST BE MONITORED PER IBC SECTION 901.6.2

## **EXISTING SCHOOLS**

1. IF A COMPLETE NEW F/A SYSTEM IS INSTALLED IT MUST COMPLY WITH ITEMS 1 THRU 7 ABOVE FOR NEW SCHOOLS.
2. IF SCHOOL IS JUST REMODELING TO SOME DEGREE, THE F/A SYSTEM INSTALLED AT TIME OF ORIGINAL CONSTRUCTION OR ITS APPROVED UPGRADES MAY REMAIN.
3. NEW VISUAL ALARMS COMPLYING WITH ABOVE MENTIONED ITEM #3 SHALL BE INSTALLED IN ALL REMODELED AREAS.
4. ANY PLANS SUBMITTED MUST SHOW AND IDENTIFY ALL EXISTING DEVICES REMAINING, EXISTING DEVICES RELOCATED, AND NEW DEVICES, (SHOW ON FLOOR PLANS AND IN F/A LEGEND).
5. ITEMS #5 & #6 ABOVE REQUIRED ON ALL DRAWINGS.
6. ALL T-BUILDINGS MUST BE TIED TO FACP IN MAIN SCHOOL BUILDING. ACTIVATING MAIN F/A SYSTEM AND VICE /VERSA.

**EXCEPTION:** IF MAIN SCHOOL BUILDINGS ARE VACANT OF STUDENTS AND FACULTY DURING CONSTRUCTION.





CITY OF HOUSTON  
PUBLIC WORKS & ENGINEERING  
CODE ENFORCEMENT DIVISION

**REQUEST FOR A REDUCED OCCUPANT LOAD FOR EDUCATIONAL OCCUPANCIES**

The purpose of this form is to calculate an **actual** occupant load in an educational space that is governed by Texas Educational Agency (TEA) rules that limit maximum class sizes. The code review will be based on the **design occupant load**. Once the code review is approved the **actual** value will be used to correlate the Wastewater Capacity Reservation letter with the Certificate of Occupancy. This will eliminate unnecessary Wastewater Capacity fees for the school.

**Part I. Application. Use the instructions in Part II, to help complete this form.**

| General Information.  |  |  |      |
|---|--|--|------|
| 1. School Name:   |  | 4. Date:                                       |      |
| School District:  |  |  |      |
| 2. Contact Name:  |  | 5. Phone:                                      | Fax: |
| District Representative:  |  | Phone:   | Fax: |
| 3. Project Address:   |  | 6. Project Number:                             |      |
| Mailing Address:  |  |  |      |
| Occupant Load Calculation.  |  |  |      |
| 7. Number of Buildings:<br>(1 unless Temporary Buildings)         |  | 10. Total TEA student allocation per building: |      |
| 8. Number of Classrooms:  |  | 11. Assigned School Staff per building:        | +    |
| 9. Design Occupant Load:  |  | 12. Additional Occupant Load:<br>**Optional**  | +    |
| District Representative<br>Signature                              |  | 13. Actual Occupant Load:                      | =    |
| Comments and Explanations.  |  |  |      |
| Please provide total actual occupant load for "T" buildings here. |  |  |      |

**Part II. Definitions and Instructions.**

**Definitions. Use these definitions to help with the terms in Part I of the form.**

1. TEA. The Texas Education Agency.
2. DESIGN OCCUPANT LOAD. The number of persons for which the means of egress of a building or a portion thereof is designed. Ref: Houston Building Code Table 1003.2.2.2.
3. ACTUAL OCCUPANT LOAD. The number of students allowed by TEA in an educational space plus the maximum number of HISD staff assigned to those students. This may be increased by a proposed simultaneous use that adds more adults.

**Instructions. Use these line- by- line instructions to help complete Part I of the form.**

1. Enter the name of the school and district for which the request is being made.
2. Enter the contact name of the person requesting the occupant load reduction and that of the district representative.
3. Enter the project address as it appears on the building permit application. Enter mailing address.
4. Enter today's date.
5. Enter the phone and fax # for the contact person (the first person in box 2). Enter the phone and fax # for the district rep.
6. Enter the City of Houston project number.
7. Enter the total number of buildings. Only 1 building allowed per request, unless they are temporary buildings.
8. Enter the number of classrooms.
9. Enter the Design Occupant Load, calculated by Section 1003.2.2.2 of the Building Code.
10. Enter the value assigned by TEA.
11. Enter the staff strength assigned to this school by the district.
12. This is an optional additional number of persons, groups or organizations that will be using the school simultaneously- during school hours. Enter the number of additional persons that would be using the school in the box.
13. Enter the sum of boxes 10, 11, and 12 (if used).

Provide signature of District Representative

Initials \_\_\_\_\_, \_\_\_\_\_, Approved, Building Official \_\_\_\_\_ Date \_\_\_\_\_

# CITY OF HOUSTON

HOUSTON PLANNING COMMISSION

PLANNING & DEVELOPMENT DEPARTMENT

## DEVELOPMENT SITE PLAN REVIEW FORM

KNOWN AS DEVELOPMENT PLAT APPLICATION IN ORDINANCE # 1999-262

R To expedite this application, please complete entire application form.

1. PROJECT NAME: \_\_\_\_\_

\_\_\_\_\_  
**STAFF  
INITIAL  
S**

2. SITE ADDRESS: \_\_\_\_\_

3. SUBDIVISION: \_\_\_\_\_

4. LOCATION: ☐ Urban Area ☐ Suburban Area

\_\_\_\_\_  
**DATE**

5. PROJECT INFO.:

Project no.: \_\_\_\_\_ Survey: \_\_\_\_\_

Lambert: \_\_\_\_\_ Census Tract: \_\_\_\_\_ Abstract no.: \_\_\_\_\_

☐ Inside city limits

Key Map: \_\_\_\_\_ Zip Code: \_\_\_\_\_ City Council District: \_\_\_\_\_

☐ ETJ

County: \_\_\_\_\_ Utility District: \_\_\_\_\_

6. GEOGRAPHIC:

North of: \_\_\_\_\_ East of: \_\_\_\_\_

South of: \_\_\_\_\_ West of: \_\_\_\_\_

7. TOTAL ACREAGE: \_\_\_\_\_

8. CONTACTS:

Developer: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Applicant: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

### 9. SUBMITTAL REQUIREMENTS

One copy of completed application form ☐

Two copies of sealed and certified survey in Building Plans ☐

Two copies of site plan in Building Plans ☐

Two copies of recorded subdivision plat in Building Plans ☐

Filing fee (\$355.00 payable to "City of Houston") ☐

\_\_\_\_\_  
**Applicant's Signature**

\_\_\_\_\_  
**Date**

CITY OF HOUSTON

DEPARTMENT OF PLANNING & DEVELOPMENT

**LANDSCAPE ANALYSIS FORM**

(Please attach to permit site plan)

Non-Single Family Residential

(Staff may create an artificial lot)

A. STREET TREES : Sec. 33-126 (a)

Length of property line in lineal feet as measured along each street separately.

Lineal feet of property / 30 = Total Street Trees.

| STREET NAME             | LINEAL FEET | STREET TREES |
|-------------------------|-------------|--------------|
|                         | / 30        |              |
|                         | / 30        |              |
|                         | / 30        |              |
|                         | / 30        |              |
|                         | / 30        |              |
| (A1) TOTAL STREET TREES |             |              |

Total number of street trees : \_\_\_\_\_ - \_\_\_\_\_ credits from below = \_\_\_\_\_ street trees required.

Maximum street tree credits can not exceed 50% of each block face.

B. PARKING LOT TREES : Sec. 33-127 (a)

Each parking space must be within 120' of a tree.

(B1) Number of new parking spaces to be constructed \_\_\_\_\_ / 10 = \_\_\_\_\_ parking lot trees.

Total number of parking lot trees : \_\_\_\_\_ - \_\_\_\_\_ credits from below = \_\_\_\_\_ parking lot trees required.

C. SHRUBS: Sec. 33-127 (b)

75% of the shrubs must be planted along the perimeter of the parking lot.

(Shrubs are required for new or the expanded portion of parking lots)

Total number of Street trees required, from (A1) above \_\_\_\_\_ x 10 = \_\_\_\_\_ shrubs required.

D. LANDSCAPE BUFFER: Sec. 33-128 (1) Wood, concrete masonry opaque screening fence. (Min. 6')

Sec. 33-128 (2) Evergreen screening.

A 6' high wood, concrete masonry opaque screening fence, or 15' wide evergreen planting strip along the total length of property line adjacent to existing single family residential, or limit of expansion adjacent to existing single family residential.

(Site plan must show land use on all sides of the property)

Sec. 33-123 (a) TREE PLANTING EQUIVALENCY CREDITS:

1. Number of proposed trees exceeding 4" in caliper \_\_\_\_\_ x 2 = \_\_\_\_\_ credits.

2. Depositing of monies with Parks and Recreation Department.

\$155.00 per tree. Proposed credits cannot exceed 30% of (A1) and (B1) above.

Amount to be deposited: Proposed credits \_\_\_\_\_ x \$155.00 = \$\_\_\_\_\_.

The combined credit under items 1 & 2 may not exceed 50% of the total tree planting requirement.

3. Preservation of on-site trees, per the following schedule in caliper:

|                                   |         |
|-----------------------------------|---------|
| minimum 4" to 6"                  | 2 trees |
| greater than 6" but less than 12" | 3 trees |
| 12" and greater                   | 4 trees |

Total number of tree credits for this option. \_\_\_\_\_ trees.

4. Credit for preserving existing right-of-way street trees. \_\_\_\_\_ trees

5. Proposed total number of tree credits. 1 + 2 + 3 + 4 = \_\_\_\_\_ trees.

(To receive credits documentation must be provided in conformance with Section 33-122)

Sec. 33-130 Preservation of existing trees and associated understory.

(a) The following procedure shall be required where credit for the preservation of existing trees and associated understory is being requested to be applied toward the total planting requirement pursuant to section 33-123(a) of this Code or the protected tree replacement requirement. Where such credit is being requested, the applicant shall also supply to the building official for review with the building plans a tree and associated understory preservation plan and shall include:

- (1) Delineation of proposed limit of clearance and establishment of tree protection zones which shall extend to outside the dripline of the tree and associated understory to be protected, if any;
- (2) Proposed soil stabilization practices, i.e., silt fence, hay bales;
- (3) The species of each tree to be preserved and for which credit is being requested;
- (4) The proposed finished grade and elevation of land within six feet of or within the dripline of any tree to be preserved, whichever is greater, shall not be raised or lowered more than three inches unless compensated for by welling or retaining methods;
- (5) Existing and proposed location of all trees and plant materials to be relocated at the drawing scale;
- (6) A landscaping tabulation, and itemized credit requests for existing trees to be preserved which have a minimum of four inches in caliper and greater;
- (7) Tree and associated understory preservation details; and
- (8) Specification of ground plane treatment as either turf or sod. If a combination of both is utilized, the limit of each shall be indicated.

(b) The following tree relocation information shall be provided on the landscape plan or in a report for the transplantation of existing specimen trees when preservation credit is being requested for them. This information shall include an assessment of the cost of transplanting the trees as opposed to the potential mortality rate which may result from the attempted transplantation. If relocation is elected, the following information shall be provided:

- (1) Transplanting techniques;
- (2) Equipment to be utilized;
- (3) Locations of existing trees and proposed locations for transplanted trees;
- (4) Genus, species, caliper, height and general condition of the existing tree;
- (5) Pruning and maintenance schedule and methods to be followed; and
- (6) Which form of assurance of performance will be provided, i.e., executed contract, bond or assigned certificate of deposit.

(c) If preservation credit is requested, the trees shall be protected and preserved as set forth in appendix C.

(d) The department shall make recommendations to minimize damage to existing vegetation during the site construction phase. The department shall also suggest possible uses for those trees removed as a result of development such as the creation of wood chip mulch from removed hardwood trees.



**CITY OF HOUSTON**  
**Health & Human Services Department**  
**(713-794-9200 or 713-535-7772)**

**FOOD INSPECTION REQUIREMENTS FOR SUBMISSION OF PLANS**

**SUBMISSION OF PLANS: SUBMIT TWO SETS OF PROPERLY PREPARED PLANS AND SPECIFICATIONS TO THE COMMERCIAL PLAN CHECKING OFFICE AT 3300 MAIN, 1<sup>ST</sup> FLOOR. THESE PLANS AND SPECIFICATIONS SHALL INCLUDE A FLOOR PLAN WITH A PROPOSED EQUIPMENT LAYOUT, ELEVATIONS OF FOOD SERVICE EQUIPMENT, AND A DETAILED ROOM FINISH SCHEDULE. (SECTION 20-25A).**

|  |   |
|--|---|
| <b>1. EQUIPMENT</b><br><br>Equipment shall be located in a way that facilitates cleaning the establishment and prevents food contamination. Floor mounted equipment, unless readily movable, shall be sealed to the floor, or installed on a raised platform of concrete, or elevated on legs to provide at least a six-inch clearance between floor and equipment. Unless sufficient space is provided for easy cleaning between and behind each unit of floor mounted equipment, the space between it and adjoining equipments units and between it and adjacent walls shall be closed or if exposed to seepage, the equipment shall be sealed to the adjoining equipment or adjacent walls. Aisles and working spaces between units of equipment and walls shall be unobstructed and of sufficient width to permit employees to perform their duties without contamination of food or food contact surfaces by clothing or personal contact. (Section 20-21, Item 10) | <b>5. FLOORS</b><br><br>The floors of food preparation, food storage, utensils washing areas, dressing areas, locker rooms and toilet rooms shall be constructed of smooth, durable materials. Floor drains shall be provided in floors that are water flushed for cleaning or in areas where pressure spray methods for cleaning equipment are used. Such floors shall be constructed only of sealed, smooth concrete, terrazzo, ceramic tile, or similar materials and shall be graded to drain. In all new or remodeled establishments where water flush cleaning methods are used, the junctures between walls and floors shall be coved and sealed. In all new or remodeled establishments, installation of exposed utility lines and pipes on the floor is prohibited.  |
| <b>2. PLUMBING</b><br><br>The potable water system shall be installed to preclude the possibility of backflow. A hose shall not be attached to a faucet unless a backflow prevention device is installed. Grease traps, if used, shall be located easily accessible for cleaning. Grease traps shall be of an approved type and size and in approved area, preferably outside the building. Except properly trapped open sinks, there shall be no direct connection between the sewerage system and any drains originating from equipment in which food or utensils are placed (Section 20-21, Item 17)  | <b>6. WALLS AND CEILINGS</b><br><br>The walls and ceilings of food preparation areas, food storage areas, equipment and utensil washing areas, toilet rooms, and vestibules shall be light colored, smooth, nonabsorbent, and easily cleanable. Studs, joists, and rafters shall not be exposed in those areas. Utility service lines, pipes and water heaters shall not be exposed on walls and ceilings in those areas. Ceilings in retail food stores and warehouses where only packaged foods, and single service use articles are stored or displayed shall be light colored, nonabsorbent, and easily cleanable. If exposed, in areas where allowed in previous sentence, HVAC ducts shall be smooth, rigid metal designed with a circular cross-section. (Section 20-21, Item 23) Wall areas adjacent to food preparation areas and utensil washing areas shall have smooth, hard, nonabsorbent surface of a type that is not adversely affected by moisture such as FRP (Fiberglass reinforced polyester), stainless steel, ceramic tile, high-pressure decorative laminate or equal. |
| <b>3. CLEANING AND SANITIZING</b><br><br>A three-compartment sink shall be used if washing, rinsing, and sanitation of equipment or utensils is done manually. Sinks shall be large enough to permit the complete immersion of the utensils and equipment. Each compartment of any sink required shall be not less than 15" x 15" x 12" (LxWxD). A drain board or similar equipment of adequate size shall be provided. (Section 20-21, Item 11 & 12). Cleaning and sanitation may be done by spray type or immersion type dishwashing machines. (Section 20-21, Item 13)  | <b>7. TOILETS</b><br><br>Toilet facilities shall be accessible to employees at all times. Toilet facilities must be located within the establishment and have inside access. Toilet rooms shall be completely enclosed and shall have tight fitting, self-closing, solid doors. Toilet rooms shall not open directly into any room in which food, drinks or utensils are handled. (Section 20-21, Item 18) Walls within water closet compartments and walls within two feet of the front and sides of urinals and hand sinks, to a height of four feet shall have a smooth, hard, nonabsorbent surface of a type that is not adversely affected by moisture (See walls and ceilings above for recommended materials.)   |
| <b>4. HANDWASHING SINKS</b><br><br>Handwashing sinks shall be located to permit convenient use by all employees in the food preparation areas and utensil washing areas. Handwashing sinks shall be accessible to employees at all times. Handwashing sinks are also required in toilet rooms or vestibules. Each handwashing sink shall be provided with hot and cold running water tempered by means of a mixing valve or combination faucet. (Section 20-21, Item 19)   | <b>8. LIGHTING</b><br><br>At least 50 foot candles (fc) of light shall be provided to all working surfaces and at least 30 fc shall be provided to all other surfaces and equipment in food preparation, utensil washing, and handwashing areas, and in toilet rooms, at least 20 fc at a distance of 30 inches from the floor. In all other areas protective shielding shall be provided for all lighting fixtures located over food storage, preparation, service and display facilities where utensils and equipment are cleaned and stored.   |

|  |  |   |
|--|--|---|
| <p><b>9. INSECT AND RODENT CONTROL</b></p> <p>Openings to the outside shall be effectively protected against the entrance of insects by tight fitting, self-closing doors, closed windows, screening, controlled air curtains, or other means. Screen doors shall be self-closing. (Section 20-21, Item 21)</p>  |  | <p><b>INSTRUCTIONS:</b></p>   |
| <p><b>10. VENTILATION</b></p> <p>All rooms shall have sufficient ventilation to keep them free of excessive heat, odors, smoke and fumes. In all new or remodeled establishments, all rooms from which obnoxious odors, vapors or fumes originate shall be mechanically vented to the outside. When such ventilation may result in the deposition of particulate matter or liquids within the ventilation system, ventilation hoods and ventilation equipment shall be equipped with effective, easily removable, easily cleanable filters. (Section 20-21, Item 25)</p> |  |   |
| <p><b>11. UTILITY FACILITIES</b></p> <p>In new or remodeled establishments at least one utility sink or curbed cleaning facility with a floor drain shall be provided and used for the cleaning of mops or similar wet floor cleaning tools. (Section 20-21, Item 23)</p>  |  |   |
| <p><b>12. GARBAGE</b></p> <p>Garbage and refuse containers, dumpsters, and compactor systems shall be stored on or above a smooth surface of non absorbent material, such as concrete or machine laid asphalt. (Section 20-21, Item 20)</p>  |  | <p><b>FOR ADDITIONAL INFORMATION PLEASE CALL:</b></p> <p><b>PLAN CHECKING SECTION: 713-535-7772</b></p> <p><b>PRE-OPENING INSPECTIONS: 713-794-9200</b></p> <p><b>After obtaining an approved set of blueprints, contact Pre-opening at 713-794-9200 to obtain an inspection appointment before operating the business.</b></p> |
| <p><b>13. POISONOUS OR TOXIC MATERIALS</b></p> <p>Each of the three categories of poisonous or toxic materials shall be stored and located to be physically separated from each other. All poisonous or toxic materials shall be stored in cabinets or in similar compartments used for no other purpose to preclude potential contamination, poisonous or toxic materials shall not be store above food, food equipment, utensils or single service articles. (Section 20-21, Item 27)</p>  |  |   |
| <p><b>14. LAUNDRY FACILITIES</b></p> <p>Laundry facilities, if provided shall be restricted to washing and drying of items necessary to the operation. If a washer is used, then a dryer must also be provided for laundry facilities. (Section 20-21, Item 28)</p>  |  |   |
| <p><b>15. DRESSING AREAS AND LOCKER ROOMS</b></p> <p>If employees routinely change clothes within the establishment, rooms shall be designated and used for that purpose. The designated rooms shall not e used for food preparation, food storage or service, or for utensil washing. Lockers may be located in packaged food/sing service article storage rooms. (Section 20-21, Item 26)</p>  |  |   |
|  |  |   |